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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Research was performed to develop tank gunnery sustainment training materials for M60A3 armor crewmembers. This research product consists of 6 booklets for use by tank commanders in maintaining their knowledge and skill in issuing basic fire commands. The first booklet (RP 83-01A) provides an overview of fire command knowledges and contains training notes. The remaining five booklets provide practice in: classifying threats (RP 83-01B); selecting ammo/weapons (RP 83-01C); sequencing fire command elements (RP 83-01D); issuing fire commands for single engagements (RP 83-01E); and issuing fire commands for multiple and (continued)			

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simultaneous engagements (RP 83-01F).

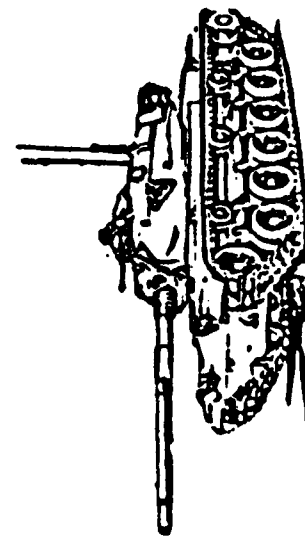
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FIRE COMMANDS FOR THE M60A3 TANK

BOOKLET 3

AMMUNITION/WEAPON SELECTION



U.S. ARMY RESEARCH INSTITUTE  
FOR THE BEHAVIORAL AND SOCIAL SCIENCES

RESEARCH PRODUCT  
RP 83-1-C

86 2 25 113

## BOOKLET NUMBER 3

### AMMUNITION/WEAPON SELECTION

#### USER'S GUIDE

This is booklet number 3 in a set of six booklets. The set deals with issuing fire commands on the M60A3 tank. When you have finished the complete set you will be able to:

ISSUE A CORRECT FIRE COMMAND FOR THE MAIN  
GUN OR ANY MACHINEGUN IN EITHER SINGLE,  
MULTIPLE OR SIMULTANEOUS TARGET ENGAGEMENTS.

#### BACKGROUND

In order to issue the correct fire command, you must be able to select the best ammunition/weapon for the target you are going to engage.

# THIS BOOKLET

This booklet will give you practice in selecting ammunition/weapons for engaging different targets. Each

The booklet contains battlefield scenarios. Each scenario includes:

- A picture of the battlefield, *and*
- A short written description of the battlefield situation.
- A question for you to answer.



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HOW TO USE THIS BOOKLET

1. Look at the scenario picture.
2. Read the written description.
3. Read the question following the description.

SOME QUESTIONS ARE FOLLOWED BY A LIST OF POSSIBLE ANSWERS. FOR THESE QUESTIONS, YOU SHOULD SELECT THE CORRECT ANSWER.

SOME QUESTIONS DO NOT HAVE ANSWERS. FOR THESE QUESTIONS YOU MUST PROVIDE YOUR OWN ANSWER.

4. Check your answer with the Answer Key on the page following the scenario.
5. Refer to:
  - FM-17-12-3if you have any further questions.

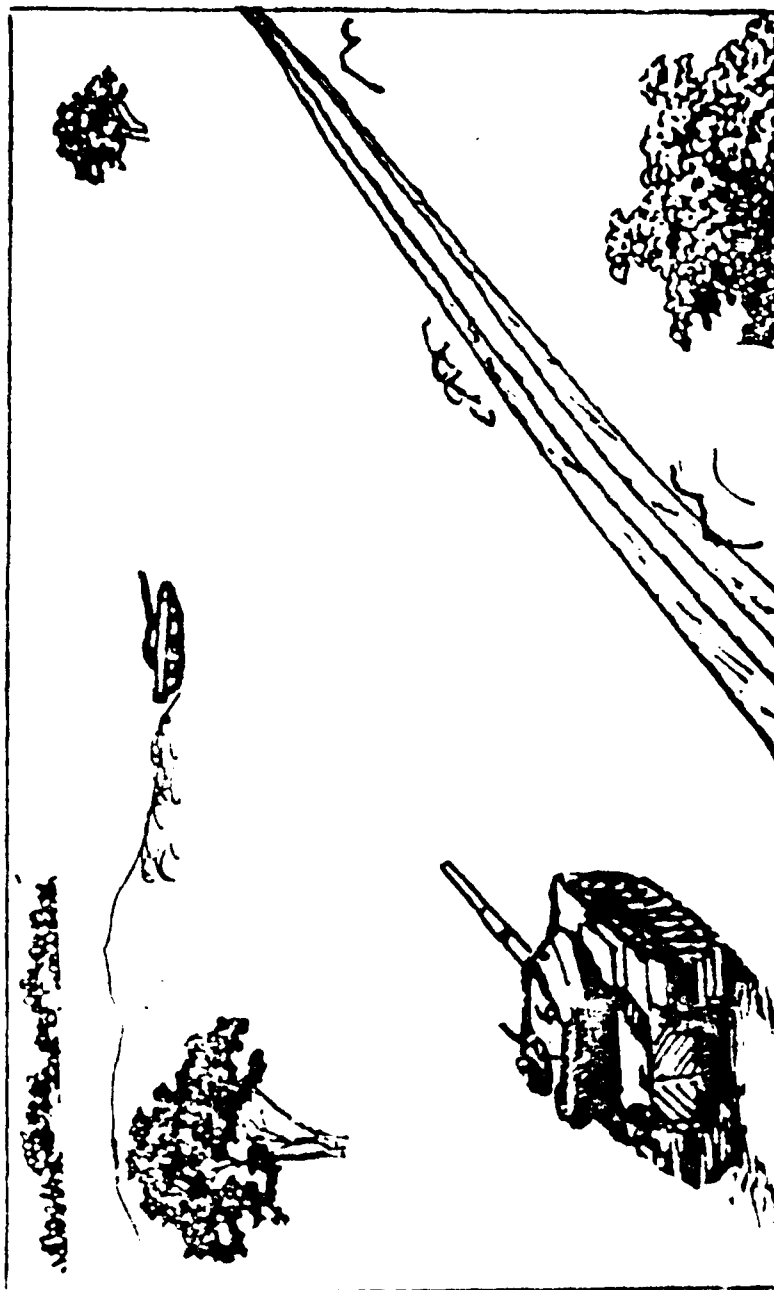
BEFORE YOU USE THIS BOOKLET

Before you use this booklet, be sure you have completed booklets 1 and 2 of this set.

TANK COMMANDER TRAINING NOTES

Training notes are presented in booklet 1.

SCENARIO 1





THE SITUATION

- You are in a deliberate attack.
- A T-72 is at 1000 meters, direct front.
- M60A3 is fully operational.

What is the BEST ammunition to use against the target at this range?

<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>
SABOT	HEAT	HEP	COAX	CAL 50

SCENARIO 1 ANSWER

You should have selected A: SABOT

SABOT is the primary round for use against armor  
at ALL RANGES.

WRONG ANSWERS

B. HEAT is the second best round against armor.  
It is used if you are out of SABOT or if it  
is in the tube and you do not have time to  
reload.

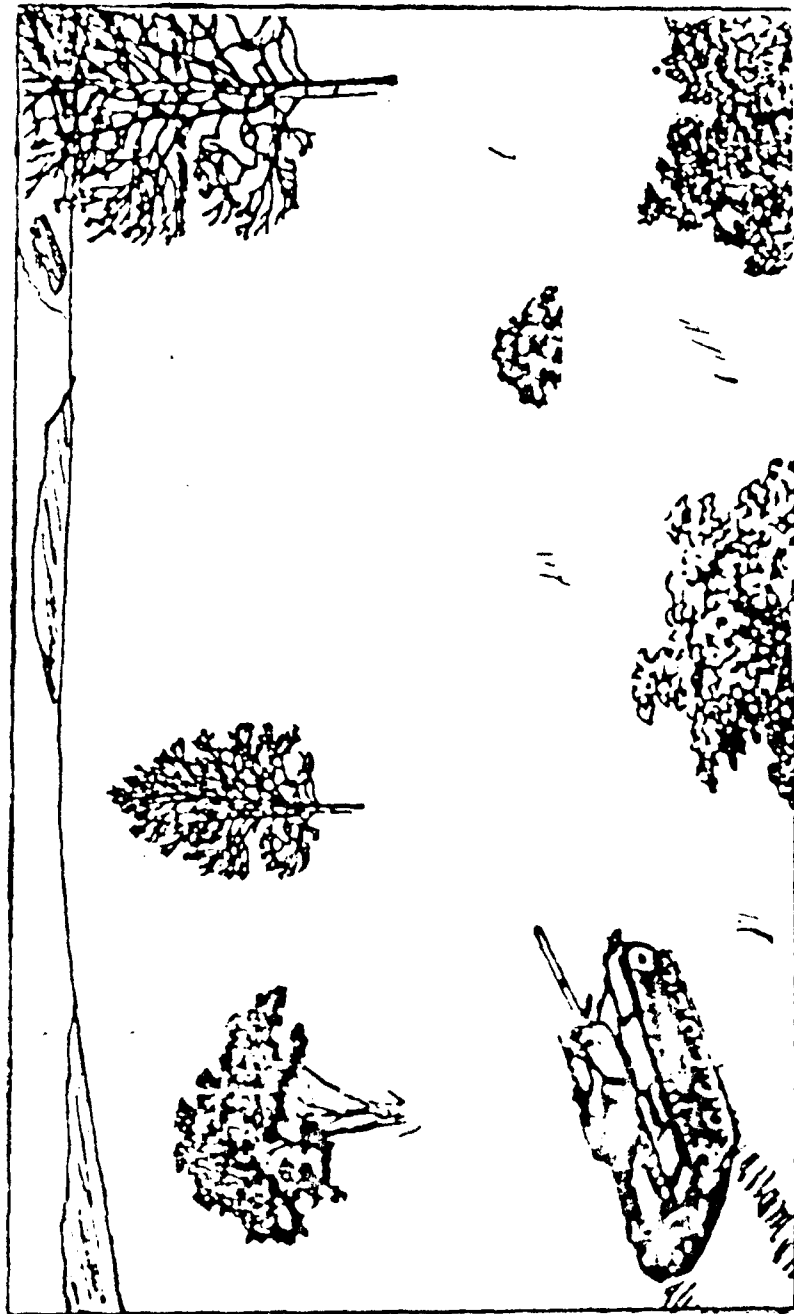
C.

D.

E.

} Not designed to defeat armor.

SCENARIO 2



THE SITUATION

- You are in a deliberate attack.
- A BM-21 mounting a 122mm rocket launcher is approaching at 2000 meters.
- M60A3 is fully operational.

What is the BEST ammunition to use against the target at this range?

<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>
SABOT	HEAT	HEP	BEEHIVE	COAX

SCENARIO 2 ANSWER

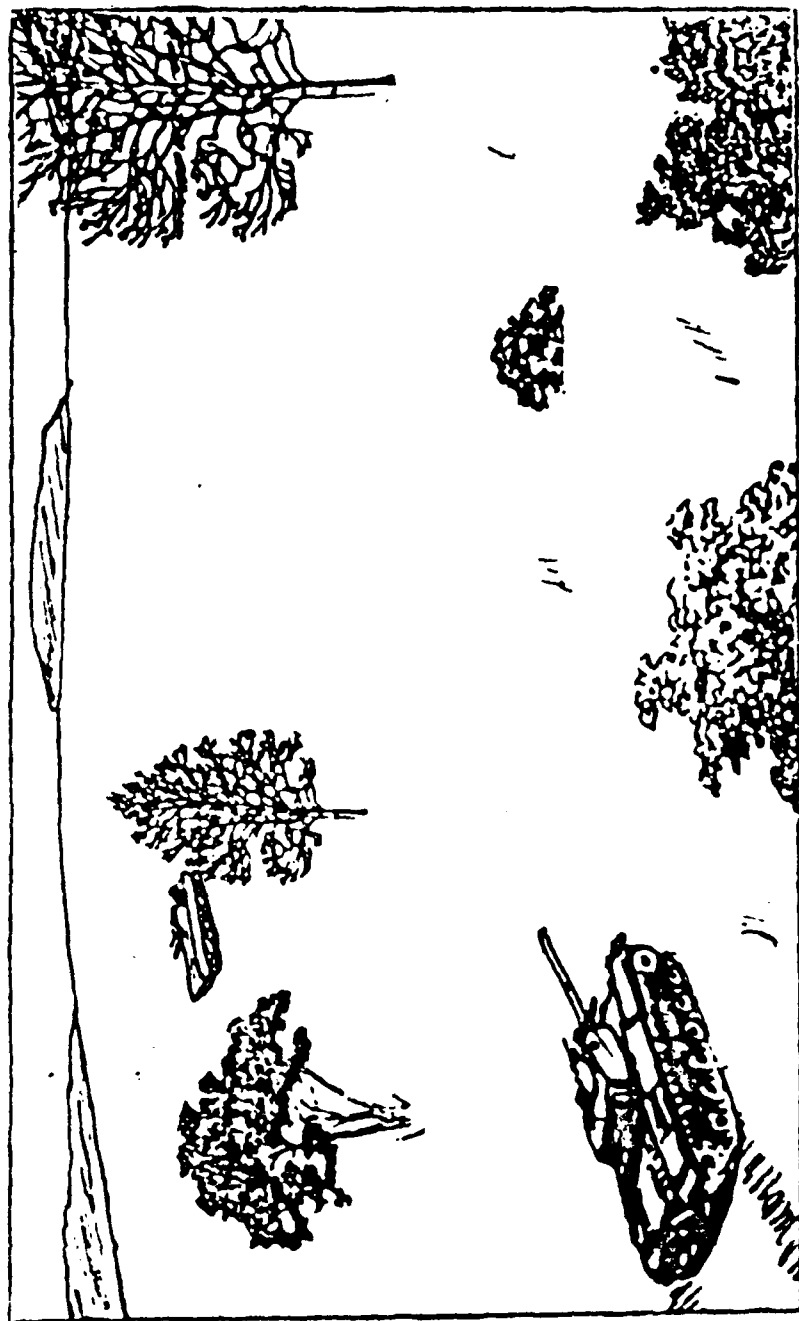
You should have selected C: HEP

HEP is the best ammo to use against trucks and unarmored vehicles. However, once HEP is phased out of the inventory HEAT ammo will be the correct answer. This is specifically true NOW if you were in a degraded mode and had to apply a HEP manual lead at 2000 meters. NOW.

WRONG ANSWERS

- A. Not recommended.
- B. Second best ammo to use.
- D. Not used.
- E. Target is out of range.

SCENARIO 3





THE SITUATION

- You are in a deliberate attack.
- A BM-21 mounting 122mm rocket launchers is approaching at 400 meters.
- M60A3 is fully operational.

What is the BEST ammunition to use against the BM-21 at this range?

<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>
HEAT	HEP	BEEHIVE	CAL 50	COAX

SCENARIO 3 ANSWER

You should have selected E: COAX

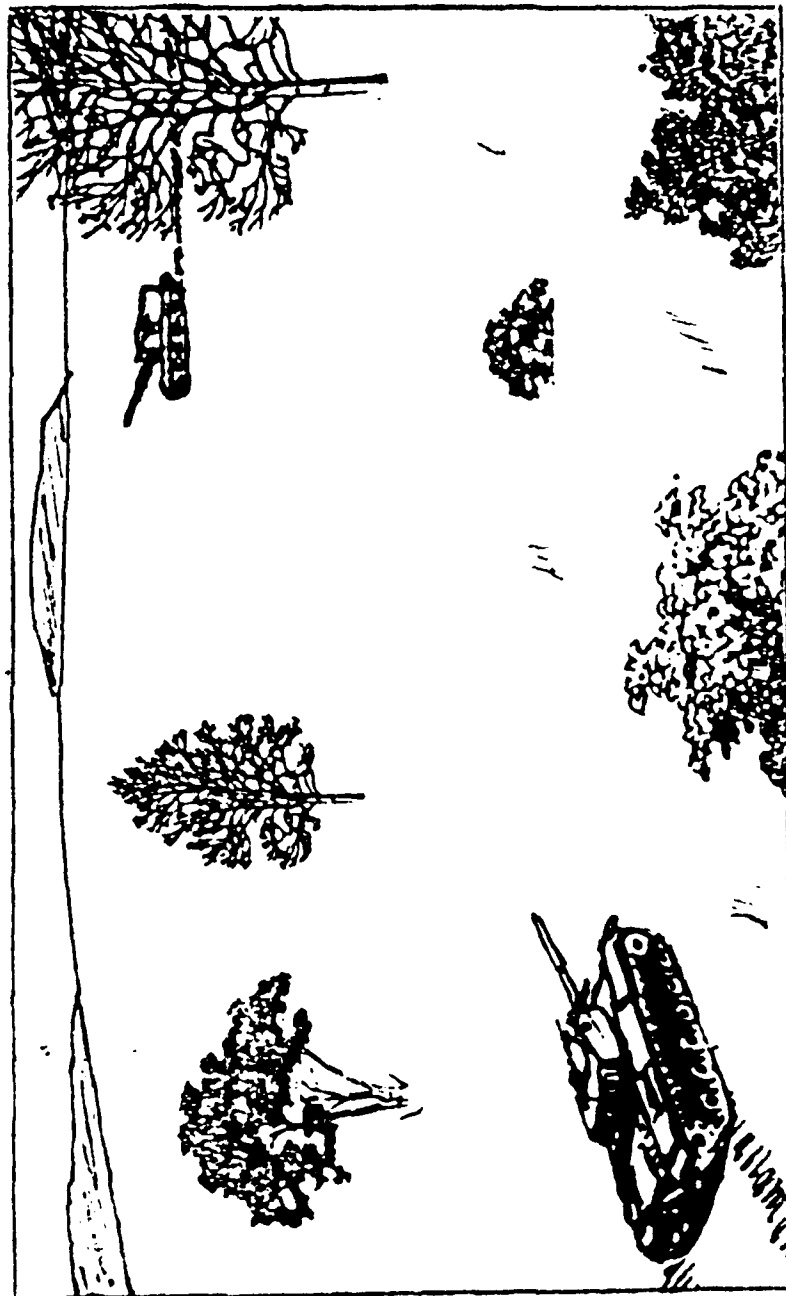
The COAX is very accurate and effective at a range of 400 meters.

By using the coax you will save the CAL 50 ammo. There is a lot more 7.62 ammo than CAL 50 ammo on the M60A3.

WRONG ANSWERS

- A. }  
B. } Target is too close to use the main gun.  
C. }  
D. Should save CAL 50 ammo for targets at greater ranges.

SCENARIO 4



THE SITUATION

- You are in a deliberate attack.
- A 152mm self propelled howitzer is direct front at 1500 meters.
- M60A3 is fully operational.

What is the BEST ammunition to use against the target at this range?

<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>
SABOT	HEAT	HEP	M240	COAX

SCENARIO 4 ANSWER

You should have selected A: SABOT

SABOT is the best round to use against armor, such as TANKS and TANK-LIKE vehicles (like the 152mm SP howitzer).

WRONG ANSWERS

B. Second best ammo to use.

C.

D.

E.

} Not designed to defeat armor.

SCENARIO 5





THE SITUATION

- You are in a deliberate attack.
- A HIND-D helicopter, at 700 meters is hovering 100 meters above the ground.
- M60A3 is fully operational.

What is the BEST ammunition to use against the helicopter at this range?

<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>
SABOT	HEAT	BEEHIVE	CAL 50	COAX

SCENARIO 5 ANSWER

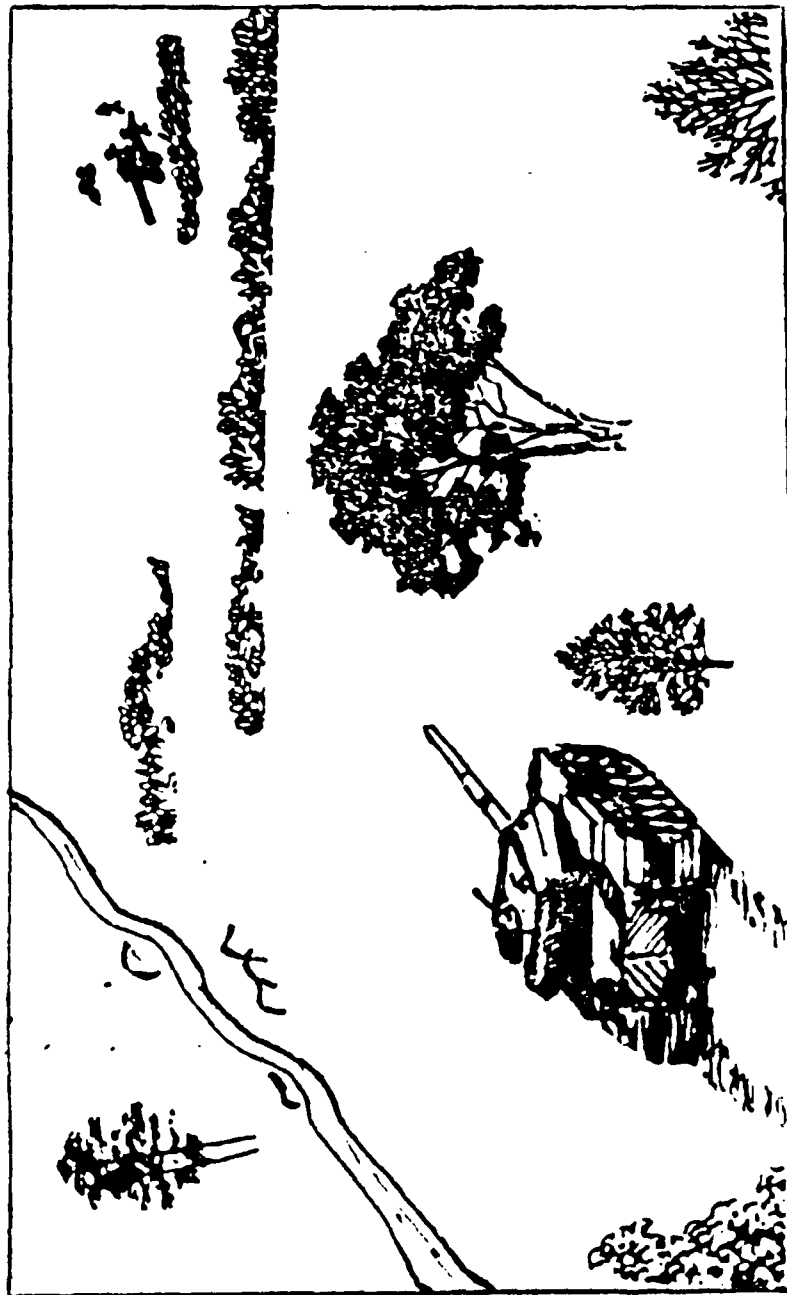
You should have selected B: HEAT

The best way to engage choppers is using the main gun with a HEAT round. No matter what you use, the probability of getting a hit is quite small. Have at it!

WRONG ANSWERS

- A. Second best ammo to use.
- C. Not recommended.
- D. A good second choice at this range.
- E. Should not use.

SCENARIO 6



THE SITUATION

- You are in a deliberate attack.
- A T-12A antitank gun is direct front at 2000 meters.
- M60A3 is fully operational.

What is the BEST ammunition to use against the T-12A at this range?

<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>
SABOT	HEAT	HEP	BEEHIVE	CAL 50

SCENARIO 6 ANSWER

You should have selected B: HEAT

HEAT is the primary ammunition to use against anti-tank targets that are not dismounted.

WRONG ANSWERS

- A. Not recommended.
- C. Second best ammo at this range.
- D. Not recommended.
- E. Target is out of CAL 50 range.

SCENARIO 7





THE SITUATION

- You are in a deliberate attack.
- A man pack SAGGER is being set up at 1100 meters.
- M60A3 is fully operational.

What is the BEST ammunition to use against the SAGGER at this range?

<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
HEP	BEEHIVE	CAL 50	COAX

SCENARIO 7 ANSWER

You should have selected C: CAL 50

The CAL 50 is the best weapon/ammo to use against dismounted anti-tank targets.

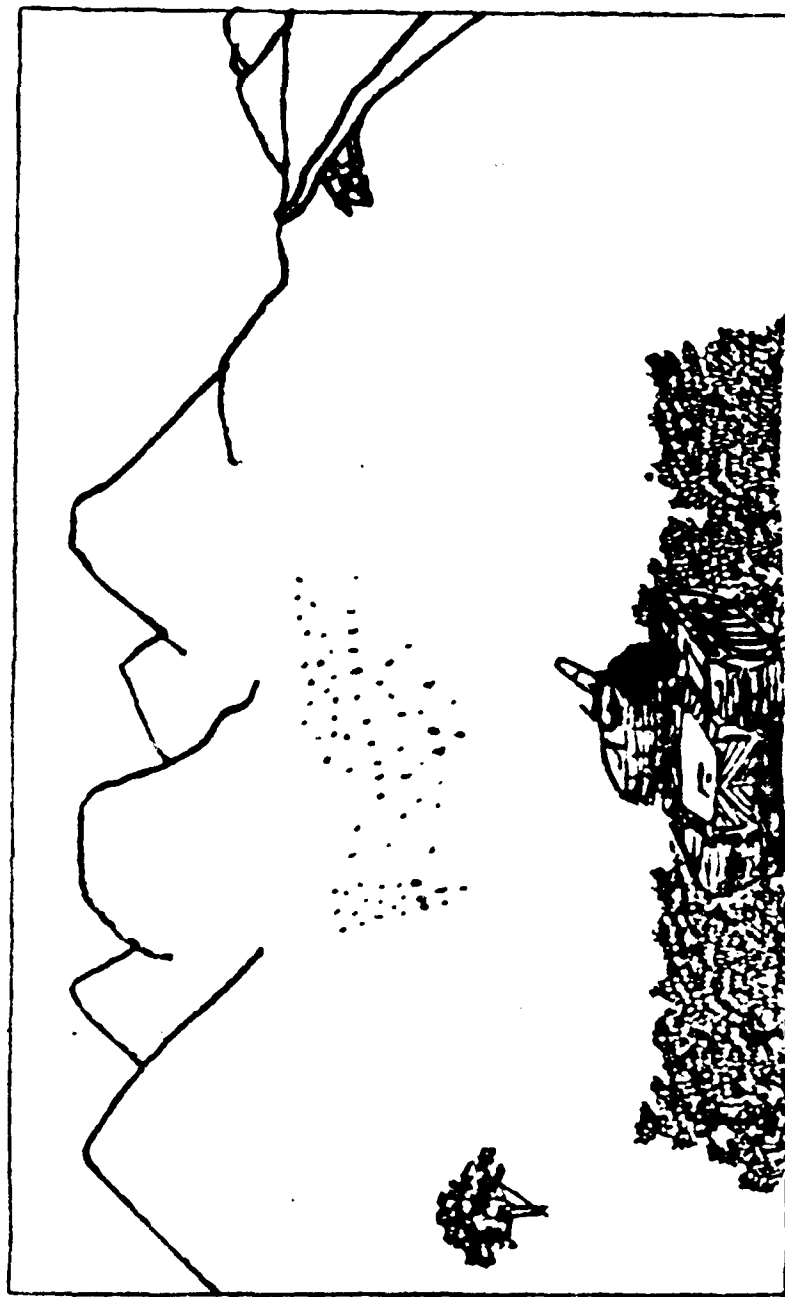
WRONG ANSWERS

A. }  
B. }

Not recommended.

D. Target is not within 7.62mm range.

SCENARIO 8



THE SITUATION

- You are in a deliberate attack.
- Enemy troops are ahead at 1200 meters.
- M60A3 is fully operational.

What is the BEST ammunition to use against the troops at this range?

<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
HEP	BEEHIVE	CAL 50	COAX

SCENARIO 8 ANSWER

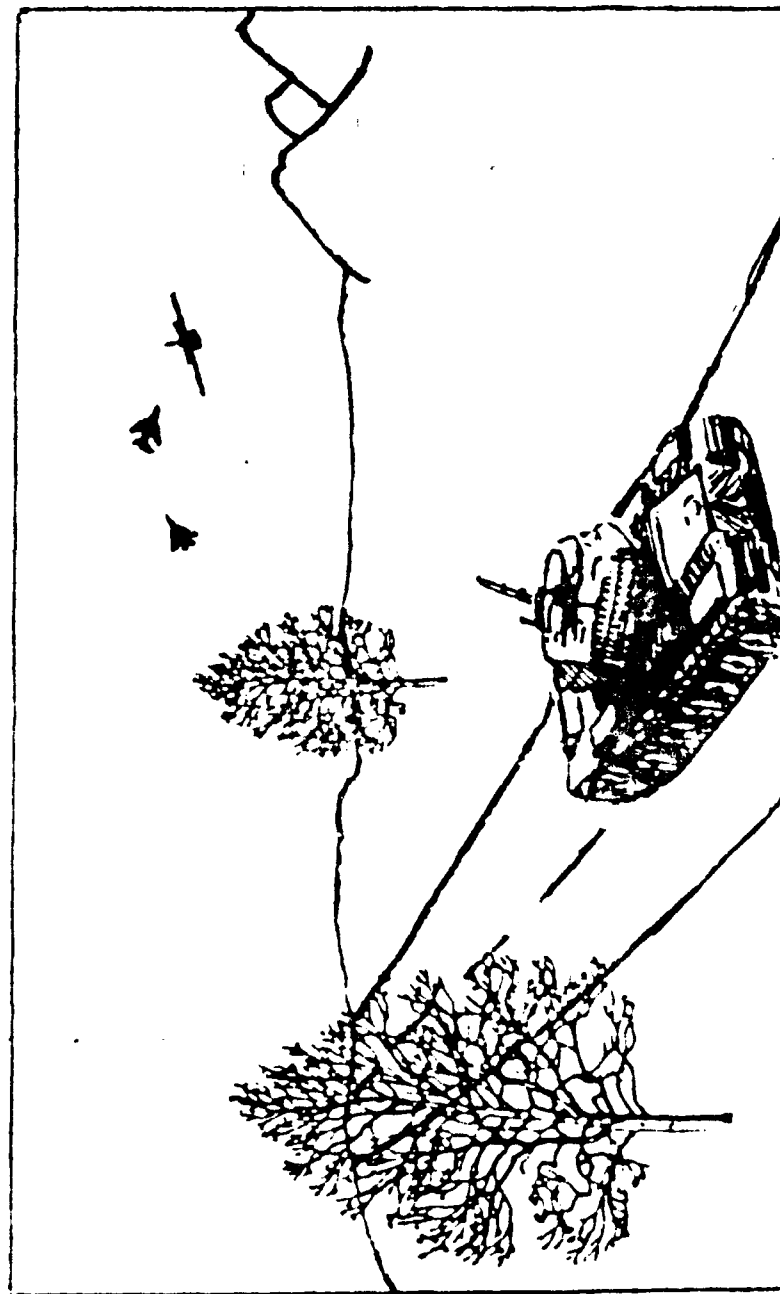
The correct answer to B: BEEHIVE

BEEHIVE is the ammo to use against troops at a range of 1200 meters. Remember, in this case the timer on the BEEHIVE round should be set to 1200.

WRONG ANSWERS

- A. Not recommended.
- C. Second best choice at this range.
- D. Not within range.

SCENARIO 9





THE SITUATION

- You are in a deliberate attack.
- Three MIG-23 FLOGGER aircraft make a low level run over your position.
- The MIG's turn and start back at you.
- M60A3 is fully operational.

What is the BEST ammunition/weapon to use against the MIG's?

<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>
CAL 5C	SABOT and HEAT	HEP and CAL 50	CAL 50 and COAX	COAX

SCENARIO 9 ANSWER

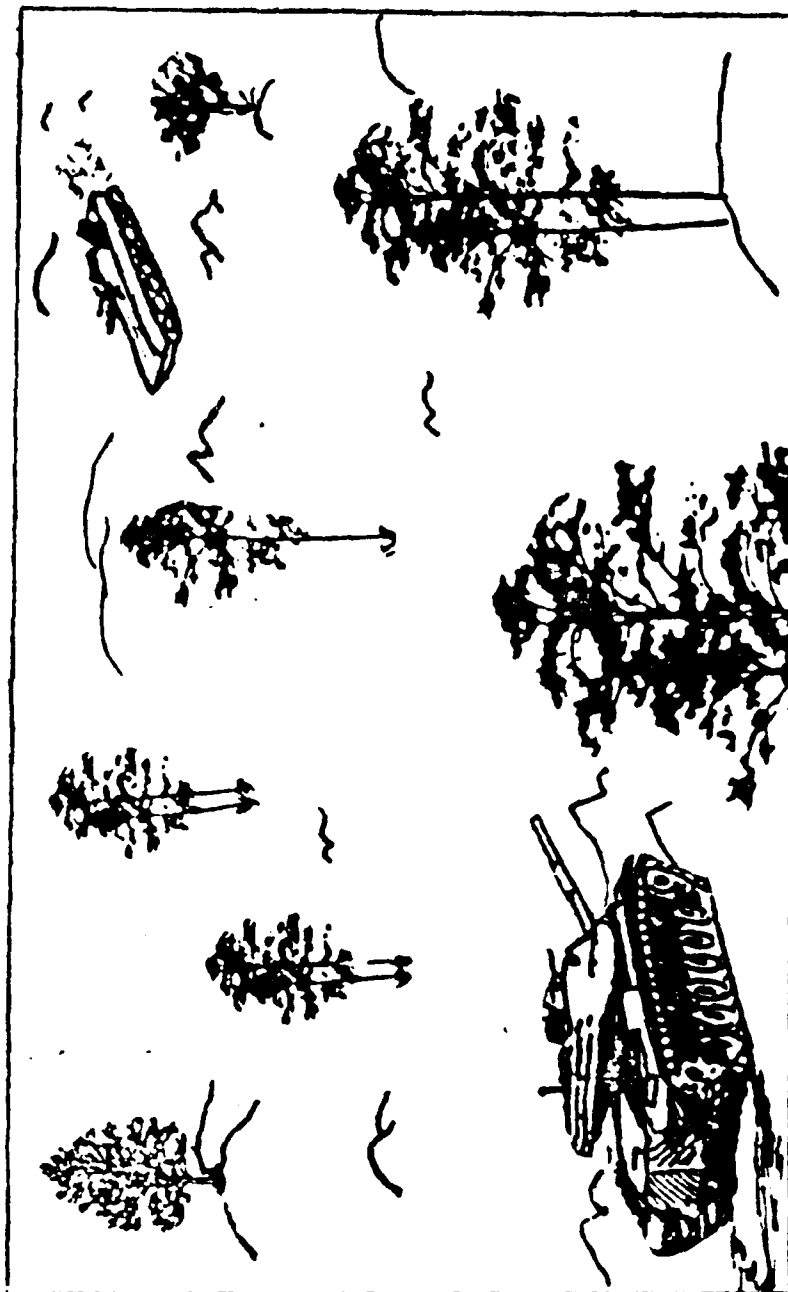
The correct answer is A: CAL 50

Since the MIG's are flying low level, the CAL 50 is used because it can be moved quickly to follow the aircraft. Use a high rate of fire and long bursts.

WRONG ANSWERS

- B. Not recommended.
- C. HEP is not recommended.
- D. } COAX will not be able to follow aircraft  
E. } overhead.

SCENARIO 10



THE SITUATION

- You are in a deliberate attack.
- A BMP mounting SAGGER is direct front at 1000 meters.
- M60A3 is fully operational.

What is the BEST ammunition to use against the BMP at this range?

<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>
SABOT	HEAT	HEP	CAL 50	COAX

SCENARIO 10 ANSWER

You should have selected B: HEAT

The primary round against armored personnel carriers, such as the BMP, is HEAT.

WRONG ANSWERS

- A. }  
C. } Second best ammunition.
- D. Only if the main gun in is used against another threat.
- E. Target is not within the coax effective range.

The M60A3 Fire Command Booklets are  
prototype training documents. For  
comments or questions contact:

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